



Comptroller General
of the United States

Washington, D.C. 20548

Decision

REDACTED VERSION

Matter of: Canadian Commercial Corporation/Canadian
Marconi Company

File: B-250699.4

Date: March 5, 1993

Michael A. Gordon, Esq., Holmes, Schwartz & Gordon, for the protester.

David R. Hazelton, Esq., Grumman Aerospace Corporation, an interested party.

Jeffery I. Kessler, Esq., and John J. Reynolds, Esq., Department of the Army, for the agency.

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DIGEST

1. Where a solicitation allows for alternative approaches to meeting performance requirements, the manner in which offerors are to fulfill the requirements need not be specified in the solicitation. Nor must the agency advise a technically acceptable offeror during discussions that it considers another approach to be superior.

2. The evaluation of technical proposals is primarily the responsibility of the contracting agency; the agency is responsible for defining its needs and the best method of accommodating them, and must bear the burden of any difficulties resulting from a defective evaluation. Thus, the General Accounting Office (GAO) will not make an independent determination of the merits of technical proposals; rather, GAO will examine the agency evaluation to ensure that it was reasonable and consistent with the stated evaluation criteria. Mere disagreement with the agency does not render the evaluation unreasonable particularly where as here, the procurement concerns sophisticated technical hardware.

'The decision issued on March 5, 1993, contained proprietary information and was subject to a General Accounting Office protective order. This version of the decision has been redacted. Deletions in text are indicated by "[deleted]."

DECISION

Canadian Commercial Corporation/Canadian Marconi Company (CMC) protests the award of a contract to Grumman Aerospace Corporation under request for proposals (RFP) No. DAAB07-91-R-B031, issued by the United States Army Communications-Electronics Command (CECOM) for vehicular intercommunications systems (VIS), or intercoms, for installation in eight Army vehicles.

We deny the protest.²

BACKGROUND

The VIS, a replacement for the intercom system currently in use in Army vehicles, the AN/VIC-1, consists of a master control station (MCS), which is used by the commander of the vehicle, full function crew stations (FFCS), which have two-way communications capabilities, and monitor only stations (MOS), which allow crew members to hear each other. Also, included are headsets, a loudspeaker and power/interconnecting cables for the eight vehicles for which VIS are to be supplied. Each of the specified vehicles requires different mixes of these and other components.

The solicitation contemplated the award of a firm, fixed-price contract for 110 VIS and 800 headsets. The basic period includes an option for 700 VIS and the solicitation also includes options for 28,910 VIS and 63,000 headsets over 4 option years.

²In previous decisions concerning the award to Grumman, we dismissed a protest by Electrospace Systems, Inc. and denied protests by Group Technologies Corporation and Telephonics Corp., Communication Systems Division. Electrospace Sys., Inc., B-250699.5, Nov. 2, 1992; Group Technologies Corp.; Electrospace Sys., Inc., B-250699 et al., Feb. 17, 1993, 93-1 CPD ¶ ____; Telephonics Corp., Comm. Sys. Div., B-250699.2, Mar. 3, 1993, 93-1 CPD ¶ _____. In Group Technologies Corp.; Electrospace Sys., Inc., we addressed and denied allegations by Group Technologies, Telephonics and CMC that Grumman had an improper competitive advantage in the competition under RFP No. DAAB07-91-R-B031 as a result of meetings with Army officials concerning a contract to supply VIS to the Diesel Division of General Motors of Canada Limited for installation in light-armored vehicles for the Saudi Arabian National Guard under the foreign military sale program. We therefore will not again address these issues in this decision.

assessment would be integrated into the ratings assigned. Also, the solicitation stated that in order to receive consideration for award, a rating of at least "ACCEPTABLE" was required on the Technical and Management factors and on each of the subfactors and elements.

CECOM received proposals from six firms: Group Technologies Corporation, Grumman, Racal Electrospase Systems, Inc., Telephonics, and CMC. Based on the initial technical evaluation, all six were included in the competitive range and clarification requests were issued and responses received from all six firms. The agency then conducted discussions by issuing written questions and accepting responses to them from all offerors. After these discussions were completed, Racal and Electrospase were eliminated from the competitive range. Additional discussions were conducted with the remaining offerors and best and final offers (BAFO) were requested on August 28, and received on September 8, 1992. The evaluators then assigned adjectival ratings to the proposals.⁴

The evaluators first assigned ratings to a series of subelements under each of the three elements under the "Operational Suitability" technical subfactor and to the other technical subfactors and the management evaluation factor. The subelement ratings were then averaged or "rolled-up" into the elements, the subfactors and then into an overall technical factor rating. The evaluators also assigned risk ratings of High, Moderate or Low to the various subelements, elements, subfactors and factors and to the Performance Risk evaluation factor. Also, the agency reports that the results of the demonstration tests were incorporated into these ratings. The final evaluation results and prices for CMC and Grumman were as follows:

⁴The agency reports that evaluators used the following rating system:

OUTSTANDING-	Significant advantages while meeting the RFP requirements.
GOOD-	Proposal that meets the requirements of the RFP.
ACCEPTABLE-	Barely meets requirements and/or offers significant disadvantages.
SUSCEPTIBLE-	Does not clearly meet requirements and/or appears to be unacceptable.
UNACCEPTABLE-	Proposal has minimal or no chance of success or contains deficiencies which require a major rewrite.

	CMC	Grumman
TECHNICAL (risk)	ACCEPT. (High)	GOOD (Low)
Subfactor A Operational Suitability (risk)	ACCEPT. (High)	GOOD (low)
Subfactor B Manpower and material resources (risk)	GOOD (Low)	GOOD (Low)
Subfactor C Production readiness (risk)	GOOD (Low)	GOOD (Low)
PERFORMANCE RISK	Low	Moderate
MANAGEMENT (risk)	GOOD (Low)	GOOD (Low)
PRICE	[deleted]	\$220,152,447

CECOM awarded the contract to Grumman on September 25. The source selection authority stated that Grumman's technical and management proposals were rated the same as or higher than the other remaining proposals and, although Grumman's performance risk was rated higher than two of the remaining offerors, its other ratings, including its low risk rating under the technical factor, combined with its low price--more than [deleted] lower than CMC's price--clearly demonstrated that Grumman offered the best overall value to the government.

PROTEST OVERVIEW

CMC argues that the Army had an unstated and unreasonable belief that the VIS must employ digital signal technology in order to meet its needs. According to CMC, this narrow and illogical view constitutes an unstated requirement for the use of digital technology which unfairly tainted the agency's evaluation of its proposed advanced hybrid balanced analog system. CMC states that this pro-digital bias manifested itself in the evaluators' low overall rating of the firm's system and of its performance demonstration based upon unsupported and erroneous criticisms of the firm's VIS as representing out-dated technology which is subject to the same performance shortcomings, primarily concerning excess noise, as plagued the VIS which the new system is to replace. More specifically, the protester maintains that this unjustified preference for a digital approach led to unreasonably low ratings for its approach to meet the RFP TEMPEST standards and for its use of a slip ring adapter. This preference also resulted in the failure of the agency to grant CMC the credit it believes it deserved for its

state-of-the-art digital voice-operated transmission (VOX) and for the inherent superiority of analog audio signals in speech intelligibility. Further, CMC complains that its proposed headsets were improperly faulted during the demonstration as having attenuation over the desired limit and as being uncomfortable and its innovative plan to use existing cables was summarily rejected.

On the other hand, according to CMC, the evaluators, enamored with Grumman's digital approach, essentially overlooked the failure of Grumman's VIS to meet the RFP TEMPEST standards, to offer a compliant VOX and for failing to meet the RFP speech intelligibility and survivability standards. In sum, CMC maintains that the evaluation of the proposals was not evenhanded and that its analog approach was not given a fair chance.

ANALYSIS

According to CMC, the agency's bias resulted from the fact that the VIS to be replaced, the AN/VIC-1, was an analog system that was considered defective because its analog signals caused unacceptable "electrical noise," or static during transmission. CMC says that it did not propose a "pure" analog system, like the AN/VIC-1; rather, it offered a "hybrid" system, which included a "balanced" analog design--as opposed to the "unbalanced" design used in the AN/VIC-1--as well as state-of-the-art digital signal processing technology. CMC explains that unbalanced audio circuits use a single wire to carry the audio signal and use the system power ground wiring for the signal's return path. According to CMC, such a system is vulnerable to the direct pickup of noise, particularly from the power ground wire. The protester points out that its approach uses a common and well-recognized approach to reduce noise which consists of a balanced audio analog circuit using two dedicated wires--each carrying an analog audio signal of the opposite polarity. CMC states that its VIS also benefits from other noise canceling techniques and claims this results in a system that is in fact superior to a digital system. According to CMC, the evaluators incorrectly assumed that the balanced analog signal system proposed by it used the same antiquated technology found in the AN/VIC-1.

While maintaining that its analog approach was the best means of meeting the RFP requirements, CMC argues that had it known that the Army wanted only a digital system, it could have proposed one. Thus, CMC argues it should have been informed during discussions that a digital VIS was, in fact, a mandatory requirement.

While admitting that based upon its experience with the AN/VIC-1 that it considered the digital approach to be

optimal, the Army denies that it would accept only a digital system. The agency points out that the solicitation provided offerors with wide latitude to propose a VIS to meet its needs and permitted the proposal of digital, analog or hybrid systems. In this respect, the agency states that the solicitation outlined the functions which the VIS is required to perform and the necessary interfaces and left it to each offeror to decide what was the best system for it to propose. According to the agency, the fact that CMC's hybrid approach was considered acceptable shows that there was no "requirement" for a pure digital system.

The RFP specifications were primarily stated in terms of functional or performance requirements, which permitted an offeror the option to choose its own approach. The solicitation included numerous desired functions and features and allowed each offeror to decide which ones to include in its proposed system. The solicitation was silent with respect to whether the system should be digital or analog, or some combination of the two. Thus, while it was left to the offeror to put together what it believed to be the best approach, there was no guarantee that the agency would consider each different approach to be equally effective. Pitney Bowes, 68 Comp. Gen. 249 (1989), 89-1 CPD ¶ 157, recon. denied, B-233100.2, June 22, 1989, 89-1 CPD ¶ 487. Where, as here, a solicitation allows for alternative approaches to meeting performance requirements, the manner in which offerors are to fulfill the requirements need not be specified in the solicitation. Nor must the agency advise a technically acceptable offeror during discussions that it considers another approach to be superior. Id. Therefore, we think that it was proper for the Army to determine under the RFP terms which offerors' approach would most likely meet the agency's performance requirements as long as that determination was reasonably based.

As far as the evaluation of technical proposals is concerned, that is primarily the responsibility of the contracting agency; the agency is responsible for defining its needs and the best method of accommodating them, and must bear the burden of any difficulties resulting from a defective evaluation. Thus, our Office will not make an independent determination of the merits of technical proposals; rather, we will examine the agency evaluation to ensure that it was reasonable and consistent with the stated evaluation criteria. Mere disagreement with the agency's conclusion does not render the evaluation unreasonable particularly where, as here, the procurement concerns sophisticated technical hardware. Liton Sys., Inc., B-239123, Aug. 7, 1990, 90-2 CPD ¶ 114.

In this case, the Army looked at CMC's approach and concluded that it had significant shortcomings. From our review of the record of both the evaluation of CMC's written proposal and the agency's demonstration test of its equipment, we think that the Army had a reasonable basis for its conclusion. This, in our view, is particularly well illustrated by the results of the demonstration test. The record of the demonstration shows that it confirmed the evaluators' initial concerns about the performance of CMC's proposed hybrid analog system. In this respect, according to the test results, various noises, such as "clicks," "squeals," "loud wavering tones" and "power hums" were heard over CMC's VIS and there were substantial differences in the volume levels of each station in the CMC systems tested.

CMC argues that had it been informed of the agency's belief that the electrical noise problems were caused by the analog nature of the system, it could have corrected what it views as the agency's misunderstanding of the system and of the causes of its shortcomings. We do not see why it matters exactly what was causing the problems. The fact is that the CMC VIS was an analog system and that it tested poorly with various types of extraneous noise detected over the intercom and the agency was not impressed with CMC's response, which essentially was that these problems would be studied and resolved after award. Under these circumstances, we think that it was reasonable for the agency to conclude that CMC's proposed VIS did not represent the best approach for meeting the agency's needs for an improved VIS. Thus, while each of the agency's conclusions concerning a particular aspect of CMC's system must independently meet the test of reasonableness, we think that at least from an overall standpoint, the Army's criticisms of CMC's analog approach are supportable.

We next turn to the specific aspects of the evaluation of CMC's proposal which are disputed by the protester.

First, CMC challenges the evaluation of its TEMPEST capability. In this regard, the solicitation stated:

"Compromising emanations related to the classified National Security information being processed within the equipment shall not exceed the specification limits of NACSIM 5100A. These emanations apply to the information being processed when secure and nonsecure radio nets are simultaneously used with VIS. No information, exceeding the specified limits, shall be available on one radio net while remaining nets (secure or nonsecure) are active."

The Army reports that during discussions with CMC, it clarified this requirement by explaining that it was seeking to prevent "cross talk," or the transmission of audio information from a secure radio to a nonsecure radio. The agency states that CMC's initial proposal provided that it could not meet the cross talk requirement. According to the agency, although CMC submitted a proposal revision stating that it met the specification, the revision did not include sufficient information to show it could in fact meet the requirement. As a result, CMC received a rating of UNACCEPTABLE on the subelement concerning TEMPEST under the Technical Performance and Associated Technical Data element.

CMC argues that an analog system such as the one that it proposed is inherently better than any digital system for meeting TEMPEST requirements and states that it redesigned its system to address the agency's concerns. According to CMC, the Army unreasonably rejected its explanation that it would meet the TEMPEST requirement.

The evaluators were concerned about CMC's admitted difficulties in fully meeting the TEMPEST requirement. While the firm stated in its revised proposal that it had reassessed its original design and would make changes to meet the requirement, the agency considered the firm's revised approach to be unacceptable. In assessing CMC's amended solution, the evaluators stated that the firm's proposal did not encompass either of two acceptable approaches: adding a masking noise source or worsening the susceptibility of the radio inputs. Although CMC states that its revised approach will accomplish the desired result, the firm does not specifically dispute the agency's view that its solution did not use either of the approaches cited by the agency as acceptable or that the cited approaches were wrong. Thus, we have no basis upon which to disagree with the agency's technical judgment.

CMC also argues that the agency unreasonably evaluated the speech intelligibility and the VOX of the CMC VIS. The speech intelligibility of each proposed system was measured by means of a modified rhyme test (MRT), which is a measure of hearing accuracy. The record shows that CMC received a score of [deleted] on the MRT, which is comparable to Grumman's score of [deleted].

CMC maintains that, in spite of the superior intelligibility of its VIS, as reflected in its MRT score of [deleted], and in spite of the fact that the evaluators considered its VOX an advantage, it received an UNACCEPTABLE rating under the MANPRINT evaluation element which encompasses the VOX and speech intelligibility.

The evaluators considered speech intelligibility and VOX under the subelement Human Factors Engineering under the MANPRINT element. Although CMC received an UNACCEPTABLE rating on the Human Factors Engineering subelement in the interim evaluation, its final rating on that subelement and on the MANPRINT element was ACCEPTABLE. Thus, the record simply does not support CMC's position; it did receive a final rating of ACCEPTABLE.

CMC also argues that the agency unreasonably downgraded its proposal for including a slip ring adapter for some vehicles. Slip ring adapters provide additional electrical connections between the body of the vehicle and the turret when the vehicle does not include sufficient conductors. In this case, for two of the eight vehicles, CMC's proposed VIS included slip ring adapters. The agency and CMC agree that the firm had to propose these units because they are necessary for the operation of CMC's hybrid analog system.

The evaluators downgraded CMC's proposal for requiring slip ring adapters since, according to the agency, the AN/VIC-1 did not require these units and therefore their proposed use was contrary to the RFP requirement that a proposed VIS "be a one-for-one replacement for the AN/VIC-1 system." As a result, CMC was assigned a rating of UNACCEPTABLE, on the Vehicle Interface subelement under the Technical Performance and Associated Technical Data element.

CMC challenges this rating arguing that it is another manifestation of the agency's pro-digital bias since the agency knew that slip ring adapters are required for the operation of its analog system. CMC also maintains that the agency's conclusion that the CMC VIS violates the "one-for-one replacement," provision is based on a hypertechnical reading of the RFP. CMC argues that the "one-for-one" limitation should only apply to VIS "components" beyond those set out in the FUDD and that a slip ring adapter should not be considered a new component similar to an MOS or an FFCS.

The agency does not agree with CMC that its slip ring adapter is a minor item and notes that the additional adapter which must be mounted in the already crowded vehicle is a disadvantage.

We do not see how the agency's criticism of the need for slip ring adapters shows a bias against analog systems since not all analog systems require these units--we note that they were not required by the AN/VIC-1. Further, we think that the agency's view that this item may well present it with additional problems in the cramped vehicles is reasonable.

CMC also argues that the agency unreasonably refused to give it evaluation credit for designing its proposed VIS to use the existing cables in the VIS vehicles. CMC maintains that there was substantial cost savings in this plan both in terms of using existing cables in the VIS vehicles and in terms of the cost of removing and replacing the existing cables. When the agency questioned the quality of the existing cables during discussions, CMC responded by proposing a diagnostic test to determine if existing cables needed to be replaced. CMC also proposed to provide at no cost sufficient cables to replace 15 percent of the existing cables and agreed to provide replacements, also at no cost, for any other cables that needed to be replaced. According to CMC, this plan would save the government \$27 million in installation costs and wasted cables and it should have been given a GOOD or OUTSTANDING rating in the evaluation which was to consider life-cycle costs.

The agency states that there have been numerous failures in the existing cables and that use of those cables would hamper VIS installation. According to the agency, the VIS units are to be installed by the soldiers who use the vehicles and CMC's proposed plan could result in vehicle downtime, due to shortages of replacement cables during VIS installation and due to VIS cable failure during vehicle operation. As a result, the agency states that it considered CMC's proposed plan to be a "poor" approach.

CMC objects that the agency rejected its cable plan simply because the evaluators misunderstood it and thought that CMC would not provide complete VIS installation kits. The evaluation record reflects the agency's concerns that the existing cables have had a high rate of failure and that the use of those cables could reduce reliability. We have no legal basis to object to this concern.

CMC next argues that its proposed headset was unfairly evaluated. CMC received a rating of UNACCEPTABLE, for its headset for two reasons. First, during the demonstration test, CMC's headset was found to have poor attenuation, which is the ability to reduce extraneous noise heard by the user in a given ambient sound environment, measured in decibels (dB). The Army explains that it performed 30 tests on each proposed headset (10 test participants, 3 samples each) at 9 different frequencies. An average score was tabulated for each frequency and a weighted average was calculated for each headset. CMC's headset achieved a score of [deleted] dB, which the agency notes is [deleted] dB higher than the Surgeon General's recommended limit of 85 dB for safe hearing. Second, the record shows that CMC's proposed headset was found to cause discomfort. Specifically, CMC was informed during discussions that the "earcups [on its proposed headset] were uncomfortable. The

earcups caused enough discomfort that headaches and earaches were experienced."

CMC maintains that the UNACCEPTABLE rating for its headset shows that the Army exaggerated the problems with its headset and was grasping for any minor imperfection to downgrade its hybrid analog approach. With respect to attenuation, CMC argues that the particular test on which its headset achieved a score of [deleted] dB was not included in the test plan provided to offerors. With respect to headset comfort, CMC argues that in a discussion response it explained that the problem was caused by uncomfortable commercial ear seals that would be replaced with larger seals in its production headsets. CMC states that the agency unreasonably identified this solution, proposed by an experienced headset manufacturer, as high risk. According to CMC, the evaluation is unfounded since increasing ear seal size presents no risk at all.

The record does not support CMC's contention that the evaluation of its headset was unreasonable. First, with respect to attenuation, the Army explains that what CMC refers to as an additional unlisted test was simply the mathematical summation of the results of the attenuation tests provided for in the test plan that were performed on the various subjects. With respect to headset discomfort, the agency states that CMC's response--that it would change the size of the ear seal in production--did not discuss the affect of this change on other aspects of the evaluation such as active noise reduction and attenuation. We have no technical basis upon which to question the accuracy of the Army's attenuation tests. Also, the Army's concerns regarding the impact of the increase in ear seal size make sense to us. Thus, in the absence of little more than general disagreement on the part of CMC, we have no basis upon which to object to the agency's technical rating under this element.

In sum, we have carefully reviewed the evaluation of CMC's proposal in the context of the protester's arguments concerning the evaluation of particular elements of its proposal and in the context of its more generic position that the evaluation results were adversely affected by the Army's alleged bias against its proposed analog system and we conclude that both the agency's concerns relating to specific elements of CMC's proposal and its overall assessment of the system's performance were reasonably based.

We next address CMC's arguments concerning the evaluation of Grumman's VIS. CMC contends that Grumman's VIS did not meet the solicitation's TEMPEST and VOX specifications, or the speech intelligibility and survivability standards. CMC's

concerns regarding the evaluation of Grumman's proposal are two-fold, its first concern is that Grumman has received an "ACCEPTABLE" rating for an approach that is in fact not acceptable, its second concern relates to what the protester believes is a lack of evenhandedness in the evaluation. An example of this second concern is CMC's view that while its TEMPEST approach was rated as "UNACCEPTABLE," Grumman's approach, which in the protester's view was at least equally flawed, received an "ACCEPTABLE" rating.

Since we have concluded that the evaluation which lead to CMC's technical factor rating of "ACCEPTABLE" was reasonably based, we think that the answer to both of CMC's concerns is essentially the same. That answer is that it would have made no difference in the selection even if we were to agree with CMC's position that (1) Grumman should have, like the protester, received an "UNACCEPTABLE" rating for its TEMPEST approach, (2) Grumman, like the protester, should have been given an "UNACCEPTABLE" rating under the MANPRINT subelement Human Factors Engineering relating to VOX and speech intelligibility,⁵ and (3) Grumman's approach to the survivability standards "should have been treated equally" and assigned an "UNACCEPTABLE" rating.

As far as TEMPEST is concerned, the record shows that Grumman was rated ACCEPTABLE under the TEMPEST subelement of the Technical Performance and Associated Technical Data element under the Operational Suitability subfactor. Grumman's rating of ACCEPTABLE concerning survivability was, like TEMPEST, one of the 18 subelements under the Technical Performance and Associated Technical Data element. Under those 18 subelements, Grumman received 13 GOOD ratings, 1 OUTSTANDING rating as well as 4 ACCEPTABLE ratings, which included the 2 ACCEPTABLE ratings for TEMPEST and survivability. According to the Army, the rating assigned to an element, in this case Technical Performance and Associated Technical Data, is to be dependent upon the subelement ratings. Here, Grumman's element rating of GOOD is supported by 13 GOOD subelement ratings. Even if we were to agree with CMC here and assign UNACCEPTABLE ratings to the two disputed subelements, the element would consist of the following subelement ratings: 1 OUTSTANDING, 13 GOOD,

⁵As we stated earlier, CMC is simply wrong when it says that it received an UNACCEPTABLE rating for its VOX and speech intelligibility. It received a rating of ACCEPTABLE. Since CMC's position concerning Grumman's approach for these two items is that the awardee should have been given the same rating as the protester, we will consider CMC as arguing that Grumman should have received a rating of ACCEPTABLE for these items.

2 ACCEPTABLE, and 2 UNACCEPTABLE.⁶ These subelement ratings would still clearly support a rating of GOOD under the element and therefore there would be no change in Grumman's overall rating and, consequently, no change in the selection.

With respect to VOX and speech intelligibility, Grumman was assigned ratings of GOOD on 11 subelements and a rating of ACCEPTABLE on another subelement under the MANPRINT element, which encompasses the Human Factors Engineering subelement which concerned VOX and speech intelligibility, among other issues. Even if we were to agree with CMC and assign an ACCEPTABLE rating to the Human Factors Engineering subelement, Grumman's overall rating of GOOD on the MANPRINT element would still be supported by 10 "GOOD," 1 ACCEPTABLE and 1 UNACCEPTABLE rating. Consequently, there likely would be no change in Grumman's overall MANPRINT rating and no change in the selection. Even if Grumman's MANPRINT rating were to be degraded to ACCEPTABLE this would not have outweighed the GOOD ratings under the other two elements. For these reasons, no useful purpose would be served by considering in detail CMC's contentions concerning the evaluation of Grumman's proposal.

The protest is denied.

James F. Hinchman
General Counsel

⁶According to the RFP, UNACCEPTABLE ratings under a subelement would not disqualify an offeror. Only such a rating under an element, subfactor or factor would have such an effect.